Guidelines for Evaluation and Management of Neonates Exposed to Syphilis

Babies born to mothers with positive syphilis tests are at risk for congenital syphilis. Maternal evidence of syphilis includes reactive non-treponemal and treponemal syphilis serology tests or positive darkfield or other direct test of suspicious lesions. This guidance is intended for infants who may have been exposed to syphilis.

Initial Evaluation

Serologic testing

- Recommended. A quantitative non-treponemal serologic test (e.g., RPR or VDRL) should be performed on the infant's serum. For accurate comparison to the maternal titer at delivery, the same test should be conducted preferably by the same laboratory.
- Not Recommended.
    - Umbilical cord blood is not recommended as it can be contaminated with maternal blood leading to a false positive result.
    - Treponemal testing (e.g., TP-PA, FTA-ABS, EIA, CIA, MBIA) is not useful, as results cannot be quantified for comparison to maternal titer at delivery.
    - Commercially available IgM tests are not recommended due to limitations in sensitivity and specificity.

Physical exam

- All infants born to women who have reactive serologic tests for syphilis should be examined thoroughly for evidence of congenital syphilis (e.g., nonimmune hydrops, jaundice, hepatosplenomegaly, rhinitis, skin rash, and pseudoparalysis of an extremity).

Darkfield microscopic examination

- Darkfield microscopic examination of suspicious lesions or body fluids (e.g., nasal discharge) are also recommended.

Pathologic exam of placenta or umbilical cord

- Pathologic examination of the placenta or umbilical cord using specific fluorescent anti-treponemal antibody staining is suggested.

Further evaluation

Further evaluation depends on findings from the initial evaluation of the infant, as well as maternal history, including treatment and titers. See the CDC 2010 STD Treatment Guidelines (www.cdc.gov/std/treatment/) for details.

- Cerebrospinal fluid (CSF) examination for VDRL, cell count, and protein.
- Complete blood count (CBC) with differential and platelet count.
- Additional tests as clinically indicated: long bone radiographs, chest radiograph, liver function tests, cranial ultrasound, ophthalmologic exam and auditory brainstem response.

Treatment

Treatment decisions are made on the basis of 1) identification of syphilis in the mother; 2) adequacy of maternal treatment; 3) presence of clinical, laboratory, or radiographic evidence of syphilis in the infant; and 4) comparison of maternal (at delivery) and infant non-treponemal serologic titers. See CDC 2010 STD Treatment Guidelines (www.cdc.gov/std/treatment/) for treatment recommendations and drug regimens.

Follow up

- All seroreactive infants (or infants whose mothers were seroreactive at delivery) should receive follow-up examinations and serologic testing with a non-treponemal test every 2–3 months until the test becomes nonreactive or the titer has decreased fourfold.
- Non-treponemal antibody titers should decline by age 3 months and should be nonreactive by age 6 months if the infant is not infected or was infected but adequately treated.

For more detail on diagnosis, treatment and management of STDs, refer to the STD Treatment Guidelines (www.cdc.gov/std/treatment).

For further questions, contact the California STD Control Branch clinician warm line at (510) 620-3400.